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EXAMINER

SEFCHECK, GREGORY B

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/638,372

Applicant(s)

PAN ET AL.

Examiner

Gregory B. Sefcheck

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-13,15,17-26,28,30-39 and 41-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-13,15,17-26,28,30-39 and 41-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

- Applicant's Amendment filed 6/23/2005 is acknowledged.
- Claims 1, 14, 27, and 40 have been cancelled, replaced with new claims 41-44, respectively.
- Claims 2, 4, 6-7, 9, 15, 17-20, 22, 28, 30, 33, and 35 have been amended.
- Claims 2, 4-13, 15, 17-26, 28, 30-39, and 41-44 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 5, 7-10, 12, 15, 17, 18, 20-23, 25, 28, 30, 31, 33-36, 38, and 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin et al. (US005687167A), hereafter Bertin, in view of Schneider et al. (US006785728B1), hereafter Schneider.

- In regards to Claims 7-8, 12, 20-21, 25, 33-34, 38, and 41-44,

Bertin discloses a method of providing access to a resource on a network. As illustrated in Fig. 2, Bertin shows the method implemented throughout the network utilizing computer software/code (claim 42 – computer program) and computer hardware (claim 44 - apparatus) comprising a memory and processor

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for storing and executing the resource providing code (claim 43 - apparatus comprising memory and processor for storing and executing code; Col. 4, lines 45-58).

Referring to Fig. 1, Bertin shows a bandwidth (resource) reservation process that involves exchanging information (installing instructions for implementing a filter) on the network to reserve bandwidth on a destination path in the network (Fig. 1, step 103-105; Col. 13, lines 4-17; claims 41-44 – filter having matching criteria that limits access of the resource to a first network device; claims 7,20,33 - instructions installed on a device, resource comprises bandwidth of the device).

Bertin discloses managing limited link bandwidth (claims 12,25,38 - limited number of filters that can be installed on a target device of the network) by preempting lower priority connections to accommodate higher priority data.

The bandwidth reservations (instructions) are modified to change the amount of bandwidth available (level of access to the resource) to the transit nodes that establish the connection to the end node (Fig. 1, steps 105-106; Col. 13, lines 13-20; claims 8,21,34 – instructions are modified to change the level of access to the resource).

Referring to Fig. 2, Bertin shows that the disclosed method of managing bandwidth resources in a network is performed for multiple nodes 201-208 that are interconnected by Trunks 209 of a high speed network. These nodes are managed through assigned addresses, such that each node can be differentiated

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among the other nodes of the network (Col. 5, lines 48-50; claims 41-44 – multiple/second device requests access to the shared resource).

Bertin does not explicitly show modifying the network access instructions by allowing access to the resource to any device having an address within an identified range of addresses based on the network addresses associated with a first and second network address.

Schneider discloses a scalable access filter to control access by users in a network (Abstract). Schneider shows a single access filter may provide access to multiple users requesting access to a resource by allowing access to all devices within a workgroup, defined by a range of IP addresses, to which the multiple users belong (Figs. 2, 7-9, and 13; Col. 5, lines 15-60; Col. 23, lines 33-52; Col. 29, lines 12-53; claims 41-44 - modifying the network access instructions by allowing access to the resource to any device having an address within an identified range of addresses based on the network addresses associated with the first and second network address).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method and apparatus of Bertin by enabling network resource access to multiple users having addresses within a range of addresses through a single filter, as shown by Schneider. This modification would reduce the amount of filters required in the network and would allow aggregating user access control into manageable workgroups, specified by an address range, in order to simplify the management, authentication and protection of the network when accessible to a large number of users.

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- In regards to Claims 2, 15, and 28,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Referring to Fig. 1, Bertin further shows the bandwidth reservation information (filter) installed on the transit and end nodes of the network. The information is defined as providing resource access (an action) to the node (device) associated with a selected path to a destination/network address (matching criteria; Col. 13, lines 1-17; Fig. 1, steps 102-105; claim 2,15,28 – filter is defined by matching criteria to identify a network address in the range of addresses and an action that is performed wrt the address).

- In regards to Claims 4, 5, 17, 18, 30, and 31,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin discloses that each node in the network maintains a topology database that contains information about the nodes, links and bandwidth allocation (level of access to resources) in the network. The database is maintained through a topology algorithm to remain correct as links and nodes (with corresponding addresses) are added, deleted or change their characteristics (Fig. 5; Col. 8, lines 42-48; claim 4,17,30 - modifying instructions

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comprises changing the range of addresses; claim 5,18,31 - modifying instructions comprises increasing the range of addresses).

- In regards to Claims 9, 22, and 35,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further discloses providing access to resources based on the priority level of data being transmitted through the network (Abstract; Col. 3, lines 23-25; Col. 15, lines 5-7; claim 9,22,35 - filter defines the level of access to the resource based on a priority level of data packets being transmitted).

- In regards to Claims 10, 23, and 36,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin further shows that modifying the bandwidth reservations (instructions) for data transmission of a particular priority group can be changed (Col. 16, lines 49-54; claim 10,23,36 - modifying instructions to change the amount of packets of particular priority that can be transmitted).

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3. Claims 6, 13, 19, 26, 32, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin in view of Schneider as applied to claims 41, 12, 42, 15, 31, and 38 above, and further in view of Hedge (US006570875B1).

- In regards to Claims 6, 13, 19, 26, 32, and 39,

Bertin in view of Hedge discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above.

Bertin does not show installing a negative filter within the range of addresses in order to block an address from accessing the resources.

Hedge discloses a method, apparatus and computer program implementation for performing multi-protocol switching and routing. Hedge shows a filter (negative filter) that forbids communication between two hosts, ports, and/or applications (addresses) connected to a switch (Col. 6, lines 5-9; claims 6,13,19,26,32,39 - installing a negative filter to block an address within the range of addresses from accessing resources or block data from an address that is transmitting).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the resource access method, apparatus and program of Bertin by installing negative filters to block an address from accessing the resources of the network devices, as taught by Hedge, thereby providing a way of altering an existing resource filter for only certain devices without impacting the effect of the filter installed on other network devices in the range of addresses.

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4. Claims 11, 24, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin in view of Schneider as applied to claims 9, 22, and 35 above, and further in view of Ellesson et al. (US006459682B1), hereafter Ellesson.

- In regards to Claims 11, 24, and 37,

Bertin discloses a method, apparatus and computer program for providing access to a network resource that covers all limitations of the parent claims above. Bertin further discloses using information in the packet header of data to be transmitted over the network.

Bertin does not expressly show that the priority level is defined as instructions in the header of data packets.

Ellesson discloses a method, apparatus and computer program implementation of controlling packet traffic (providing access to resources) in an IP network. Ellesson discloses encoding the traffic class (priority level) into the headers of the data packets to be transmitted to determine their network priority (Abstract; claim 11,24,37 - priority level of the packets is defined by instructions in headers of the packets).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the resource access method, apparatus and program of Bertin by explicitly defining the priority level of data within the header of the data packet to be transmitted over the network, as taught by Ellesson. This

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modification would provide priority level information for incoming data to each transit node without requiring the additional resources of a separate information/signaling channel between each transit node along the path to the destination address.

Response to Arguments

5. Applicant's arguments with respect to claims 41-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory B. Sefcheck whose telephone number is 571-272-3098. The examiner can normally be reached on Monday-Friday, 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GBS
8-24-2005



HANH NGUYEN
PRIMARY EXAMINER